

## THE CLAIMS

What is claimed is:

- 5        1. A method for identifying tooth shades, comprising:
  - storing a database of information including at least three categories corresponding to different tooth regions, and for each category, the database including a set of values that represent tooth shades in that corresponding tooth region;
  - obtaining an image of a patient's tooth;
  - 10        displaying two lines over the image;
  - moving the location of the lines under operator control to selectively identify the regions on the patient's tooth;
  - generating values for certain color characteristics of the selectively identified regions of the patient's tooth; and
  - 15        identifying tooth shades for the selectively identified regions of the patient's tooth based on the information in the database and the values generated for the patient's tooth.
2.        The method of claim 1 wherein the storing comprises storing numerical values in categories corresponding to cervical, central, and incisal tooth regions.
- 20        3.        The method of claim 2 wherein the moving comprises moving the location of the lines under operator control to selectively identify the cervical, central, and incisal regions on the patient's tooth.
4.        The method of claim 1 wherein the displaying comprises displaying two lines that are parallel.
- 25        5.        The method of claim 1 wherein the displaying comprises displaying two lines that are fixed in location in relation to each other.
6.        The method of claim 1 wherein the identifying comprises comparing certain color characteristics for each of the selectively identified regions with the same color characteristics for corresponding categories in the database.

7. The method of claim 1 wherein the identifying comprises identifying tooth shades by the tooth regions for which categories exist in the database.

8. A system for identifying tooth shades, comprising:

a database of information including at least three categories corresponding to  
5 different tooth regions, and for each category, the database including a set of values that represent tooth shades in that corresponding tooth region;

computer equipment that is configured to display an image of a patient's tooth, to display two lines over the image, to move the location of the lines under operator control to selectively identify the regions on the patient's tooth, to generate values for certain color  
10 characteristics of the selectively identified regions of the patient's tooth,

wherein the system is configured to identify tooth shades for the selectively identified regions of the patient's tooth based on the information in the database and the values generated for the patient's tooth.

9. The system of claim 7 wherein the database comprises numerical values in  
15 categories corresponding to cervical, central, and incisal tooth regions.

10. The system of claim 8 wherein the equipment is configured to move the location of the lines under operator control to selectively identify the cervical, central, and incisal regions of the patient's tooth.

11. The system of claim 7 wherein the equipment is configured to display two  
20 lines that are parallel.

12. The system of claim 7 wherein the equipment is configured to display two lines that are fixed in location in relation to each other.

13. The system of claim 7 wherein the system is configured to compare certain color characteristics for each of the selectively identified regions with the same color  
25 characteristics for corresponding categories in the database.

14. The system of claim 7 wherein the system is configured to identify tooth shades by the tooth regions for which categories exist in the database.